

1/18

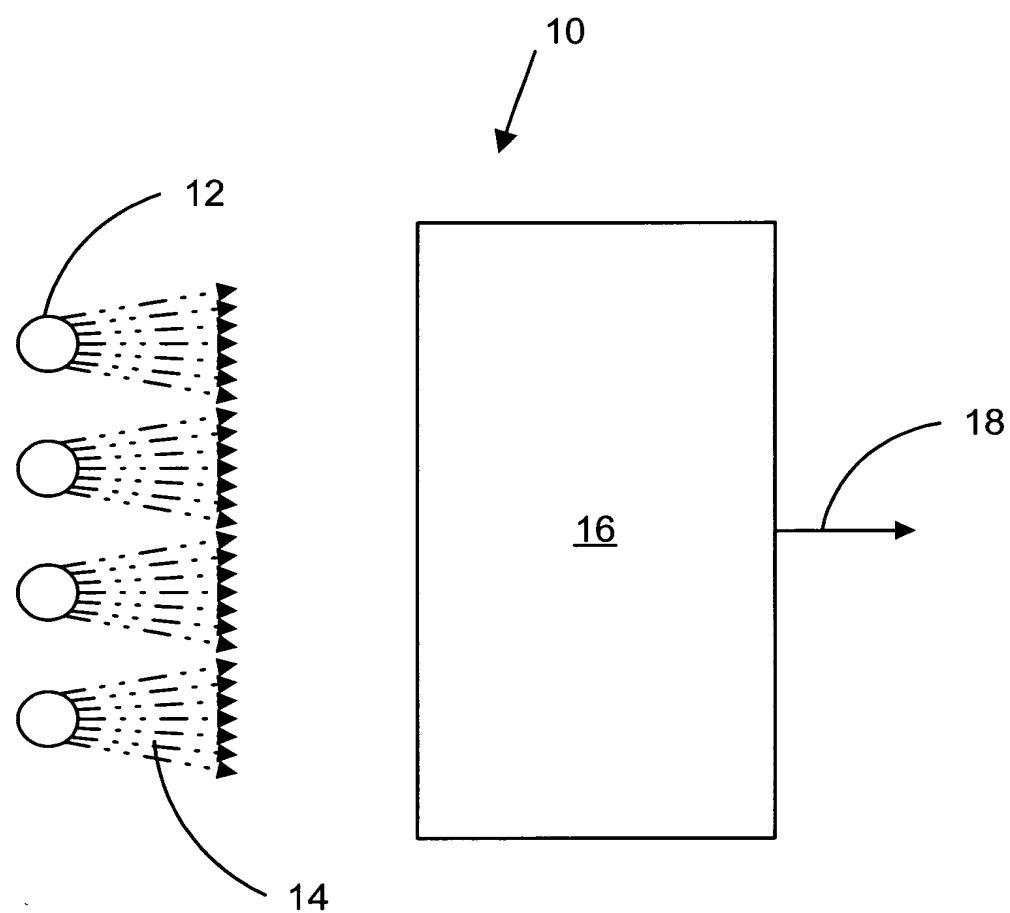


Fig. 1

2/18

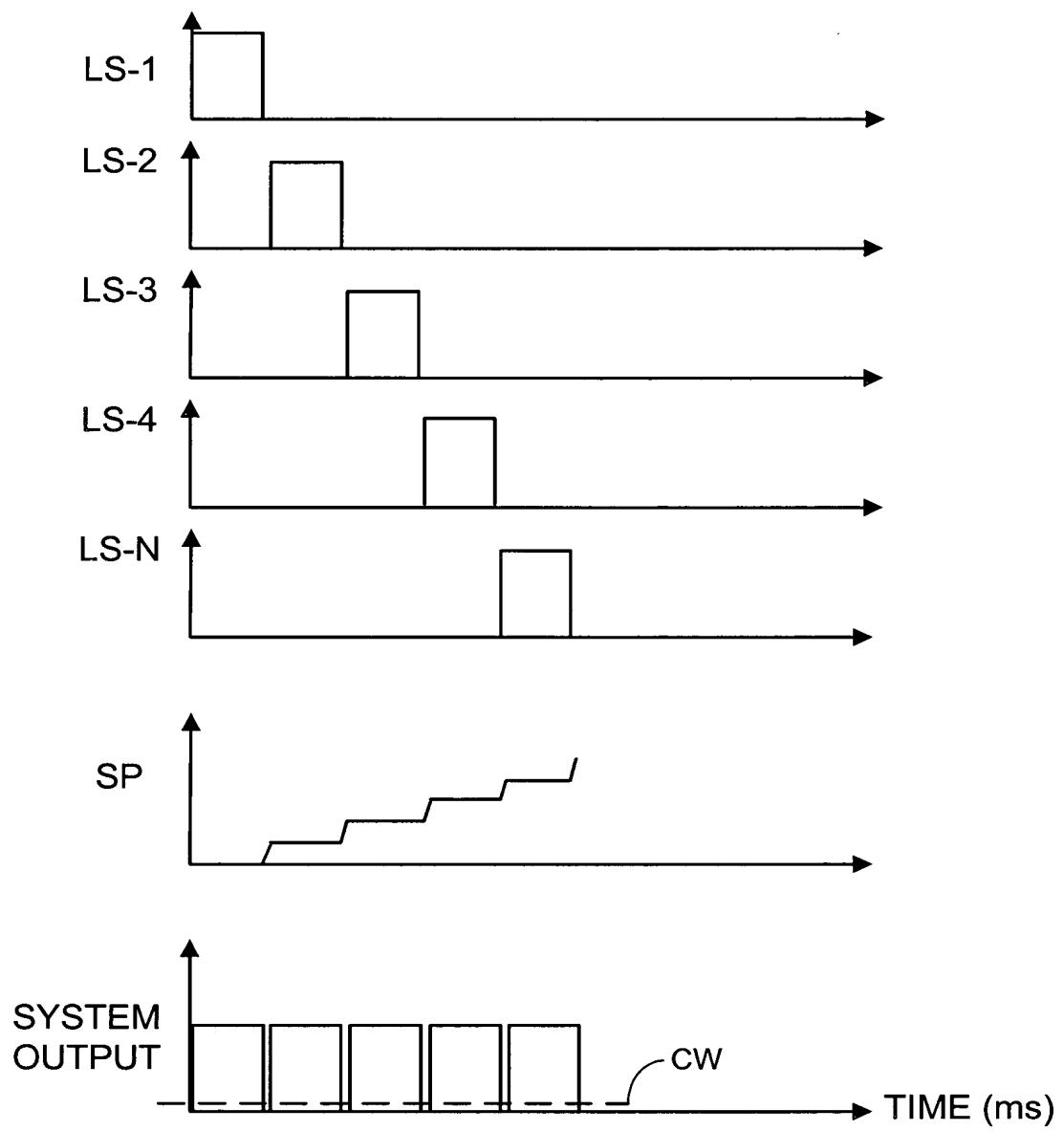


Fig. 2

3/18

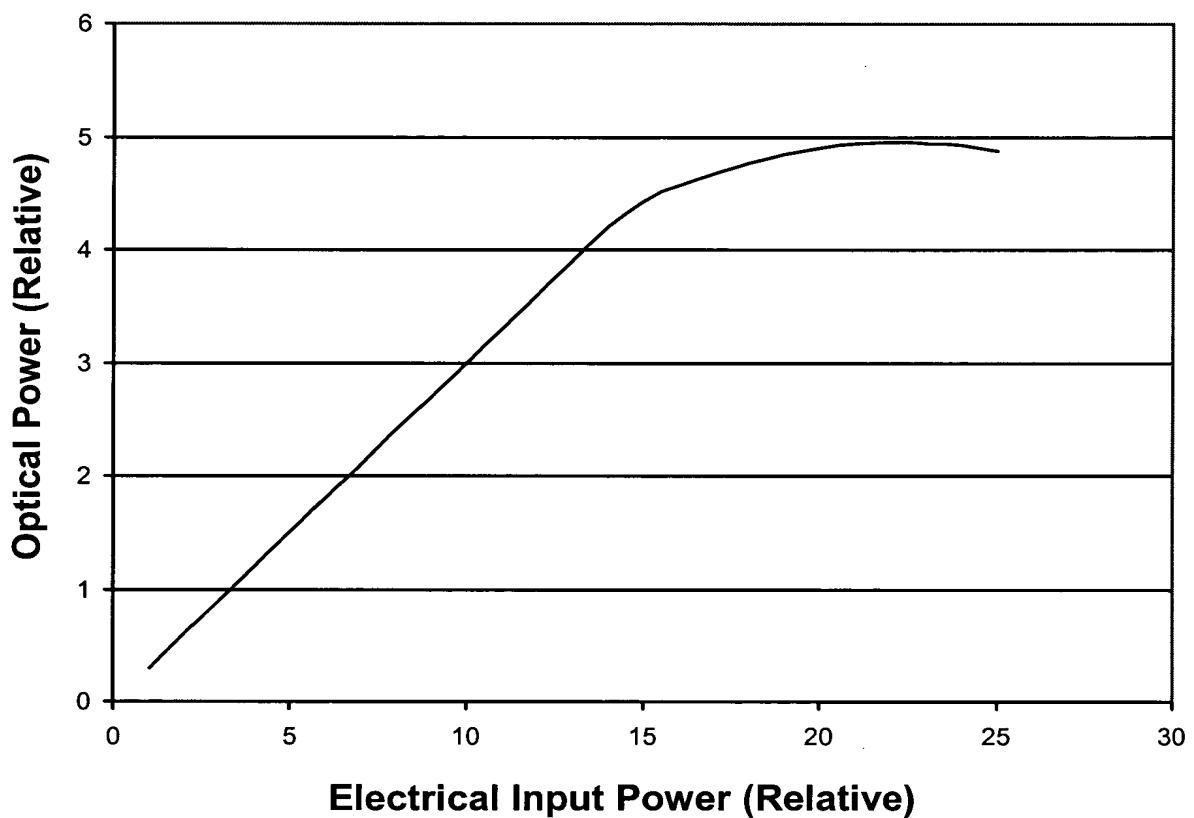


Fig. 3

4/18

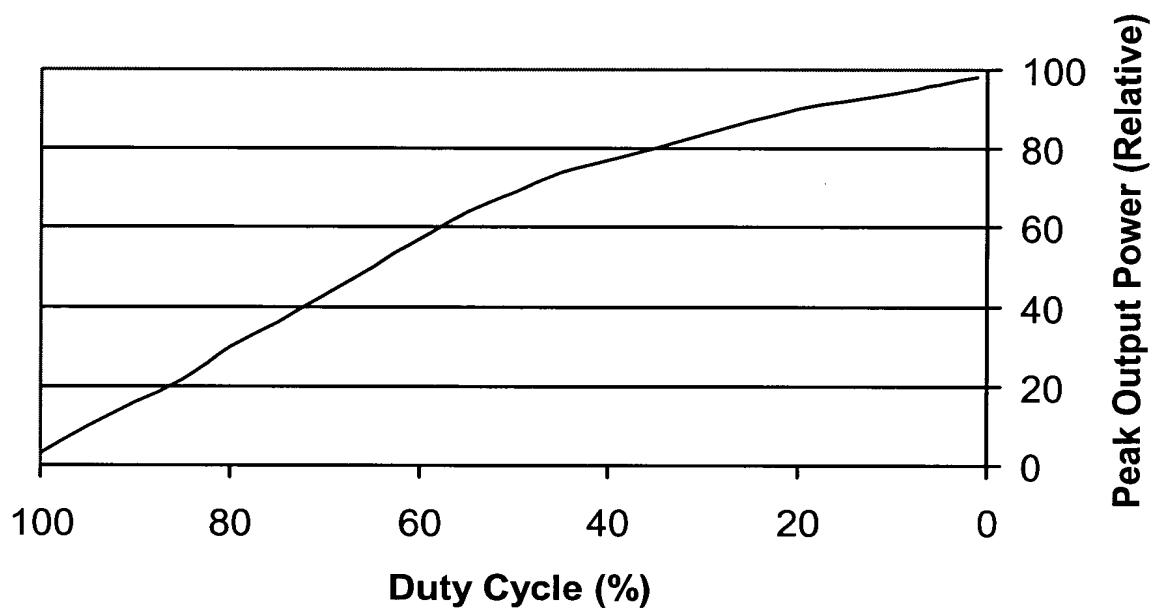


Fig. 4

5/18

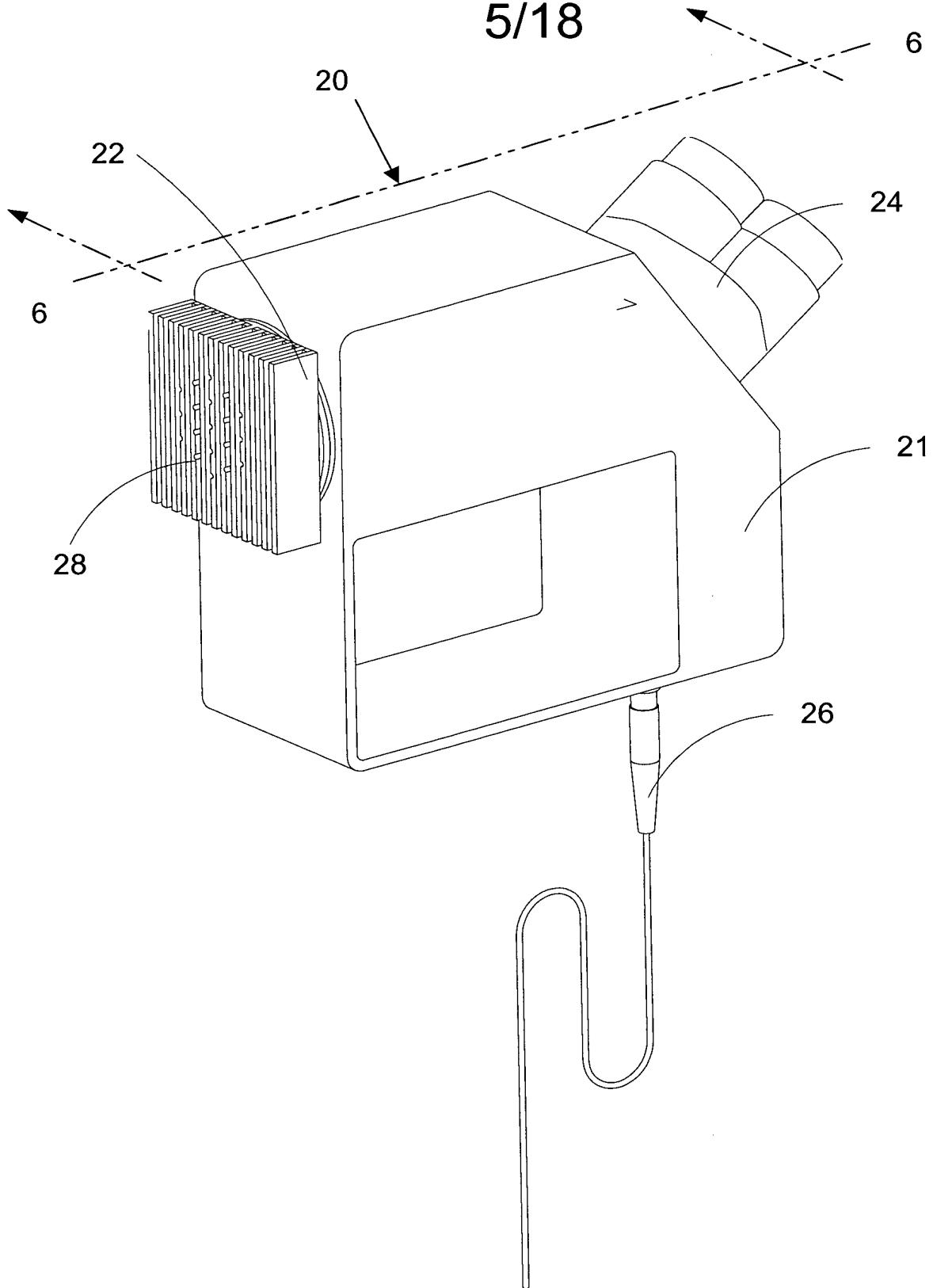


Fig. 5

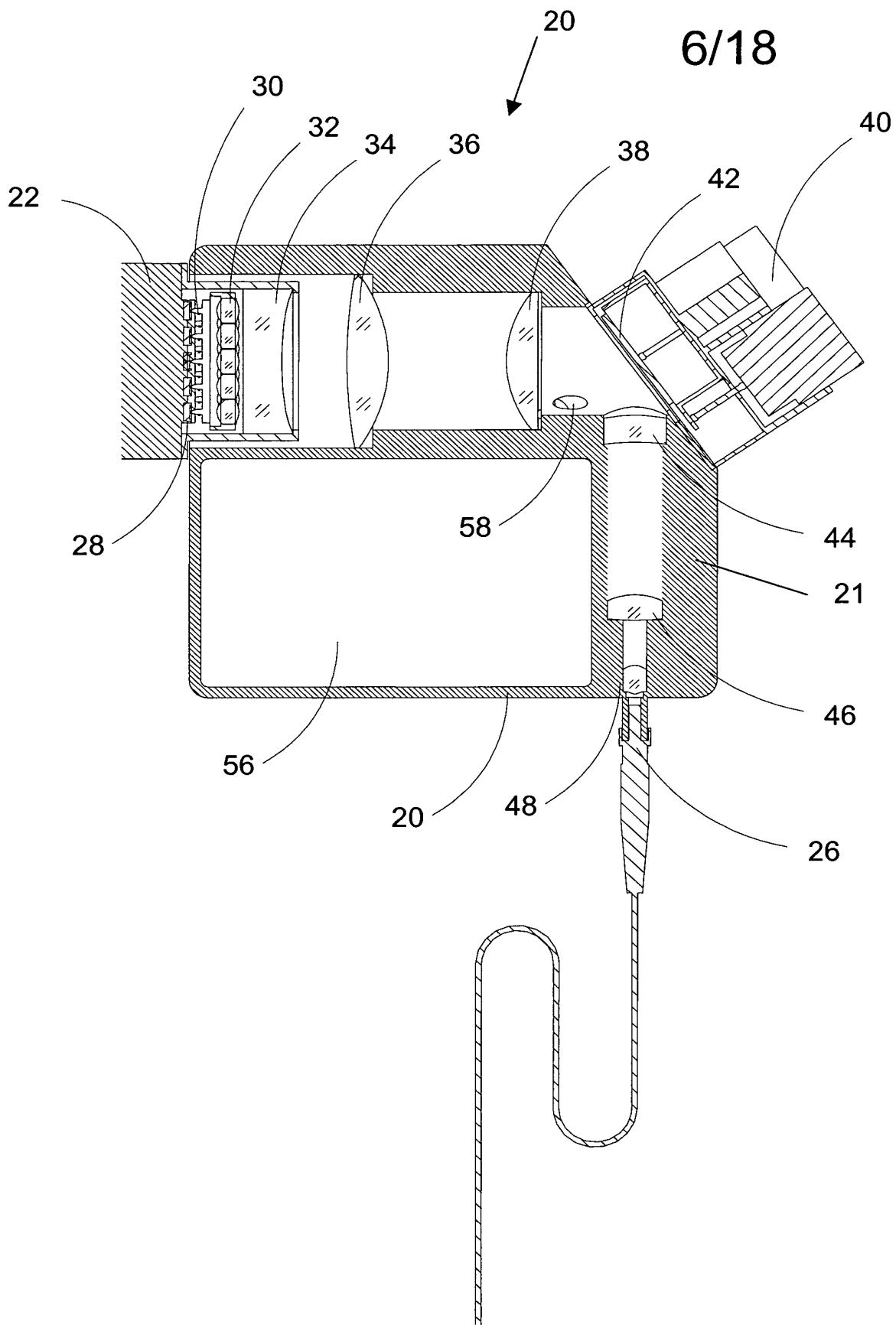


Fig. 6

7/18

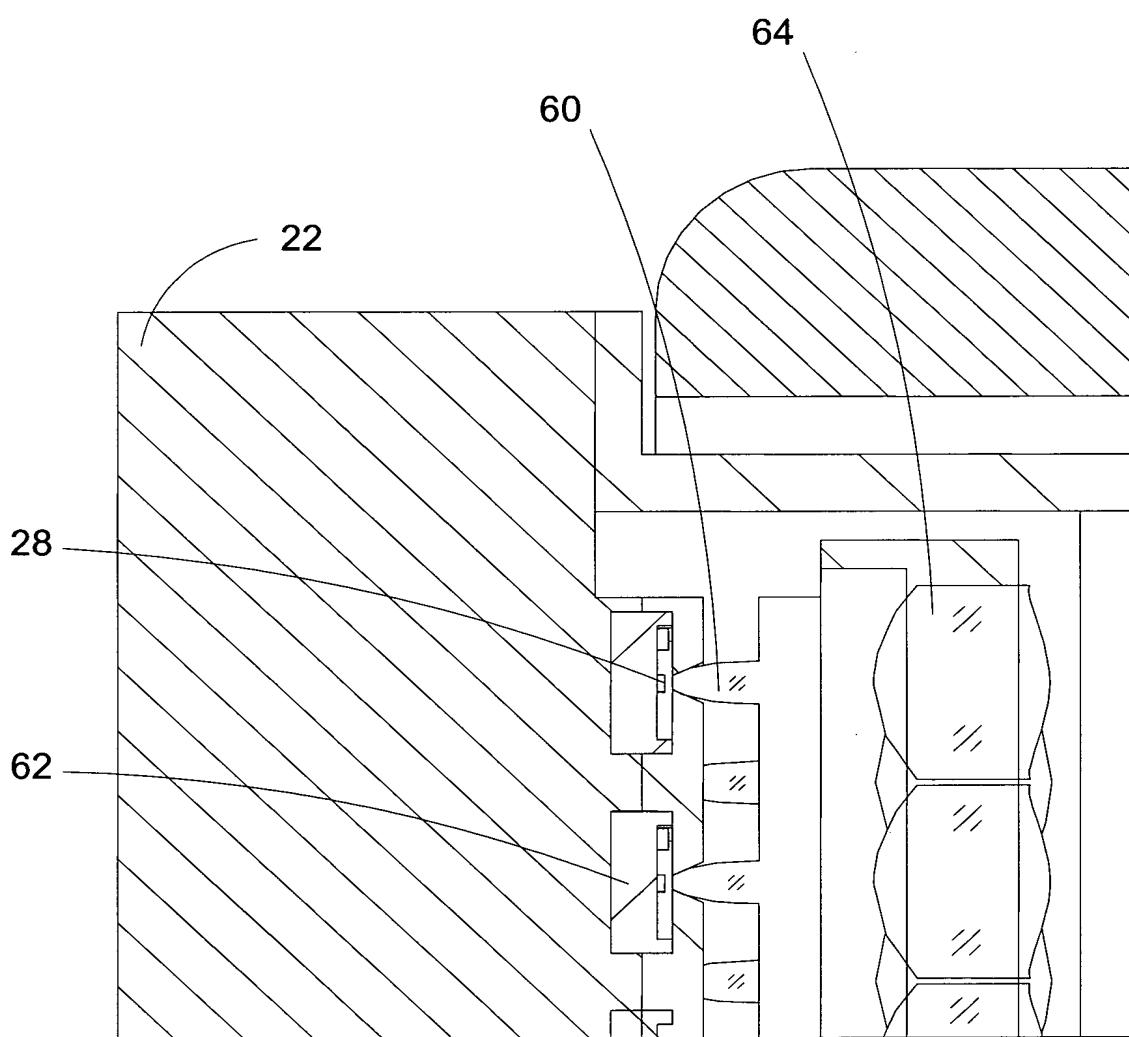


Fig. 7

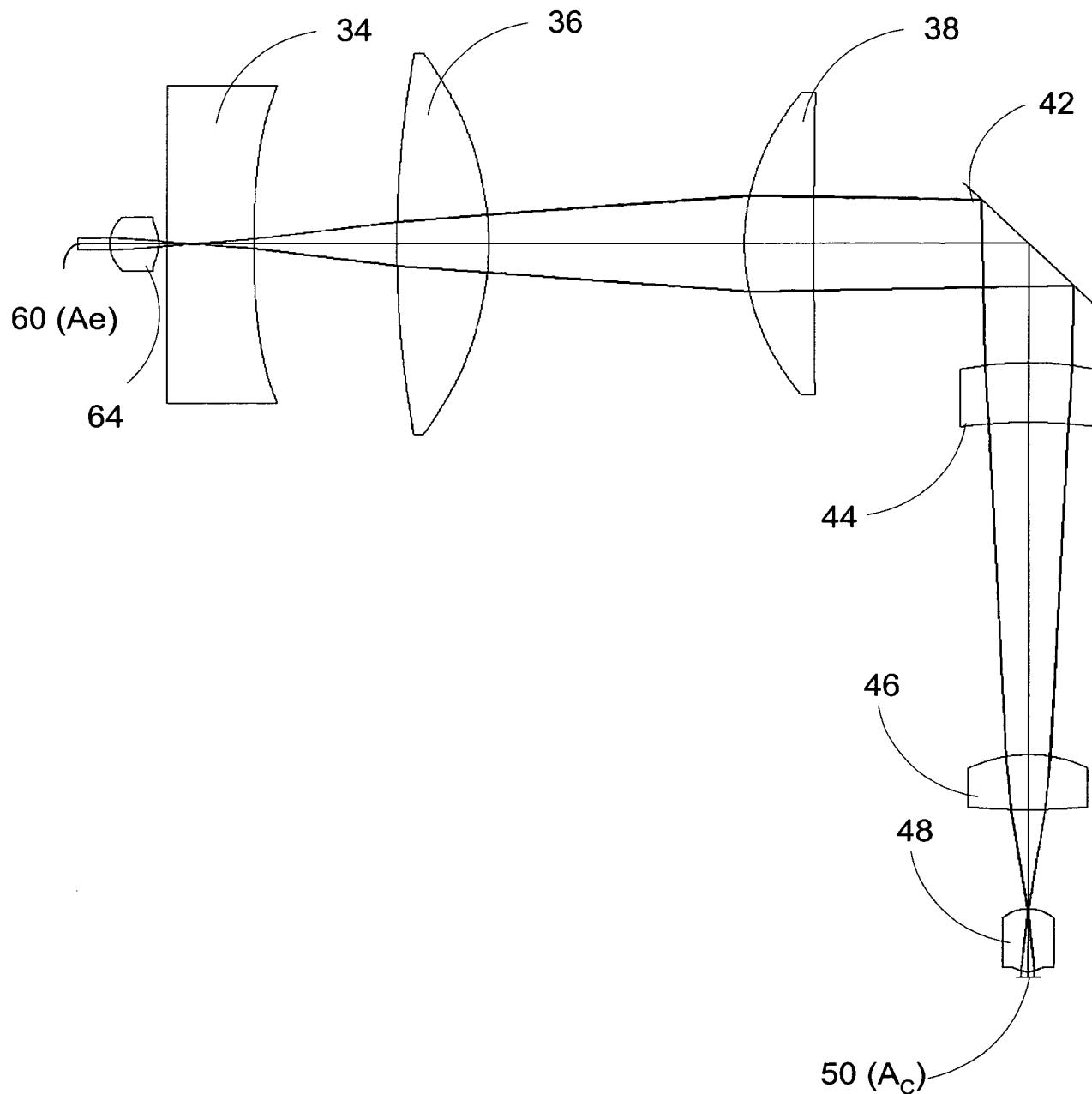


Fig. 8a

9/18

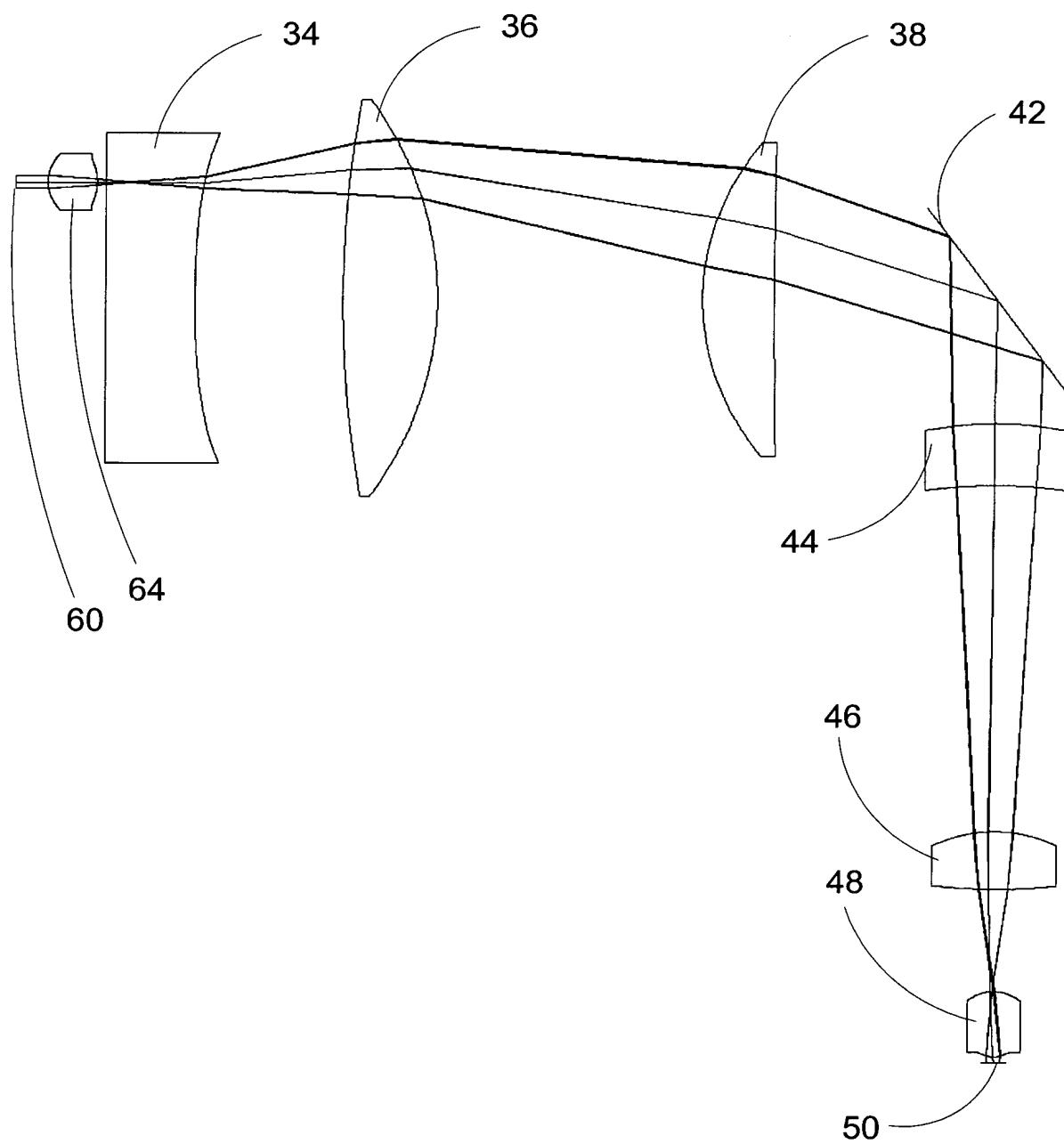


Fig. 8b

10/18

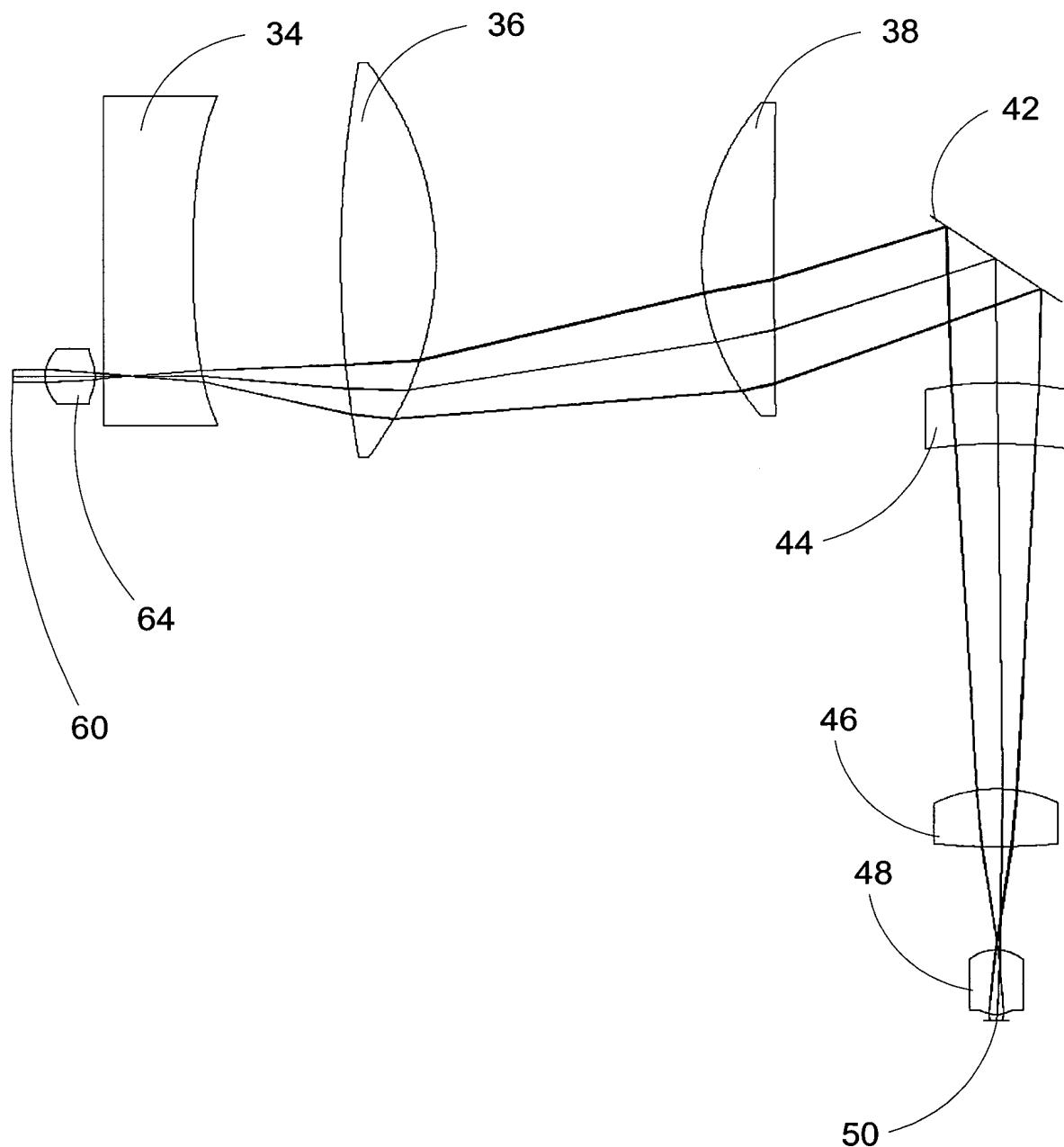


Fig. 8c

# 11/18

## Table 1

**Lens Design Scaled to a 100-mm focal length**

<b>Lens #</b>	<b>Surface</b>	<b>Radius</b>	<b>Thickness</b>	<b>n<sub>d</sub></b>	<b>Power</b>	<b>Abbe #</b>
	0	Infinity	56058.1810			
	STOP	Infinity	-56058.1810			
	CPC	Infinity	207.4082			
64	3	459.5432	317.9224	1.491668	0.002997	55.310192
	4	-643.4468	56.0582			
	5	Infinity	0.0000			
34	6	Infinity	560.5818	1.491668	-0.000076	55.310192
	7	-8471.2868	934.9330			
36	8	8089.6521	594.4619	1.491668	0.000266	55.310192
	9	-2364.7682	1681.7454			
38	10	1719.8082	448.4655	1.491668	0.000281	55.310192
	11	60668.2952	1401.4545			
	12	Infinity	0.0000			
42	13	Infinity	0.0000			
	14	Infinity	-840.8727			
	15	Infinity	840.8727			
	16	Infinity	-840.8727			
44	17	-2076.5417	-420.0538	1.491668	0.000117	55.310192
	18	-3064.8210	-2356.2217			
46	19	-848.0278	-393.7192	1.491668	0.000705	55.310192
	20	3530.2928	-700.4851			
48	21	-236.4067	-447.0583	1.491668	0.007155	55.310192
	FIBER	36.6046	-34.5267			
	23	Infinity	-56058.1810			
	24	Infinity	56058.1810			
	25	Infinity	0.0000			

**Fig. 8d**

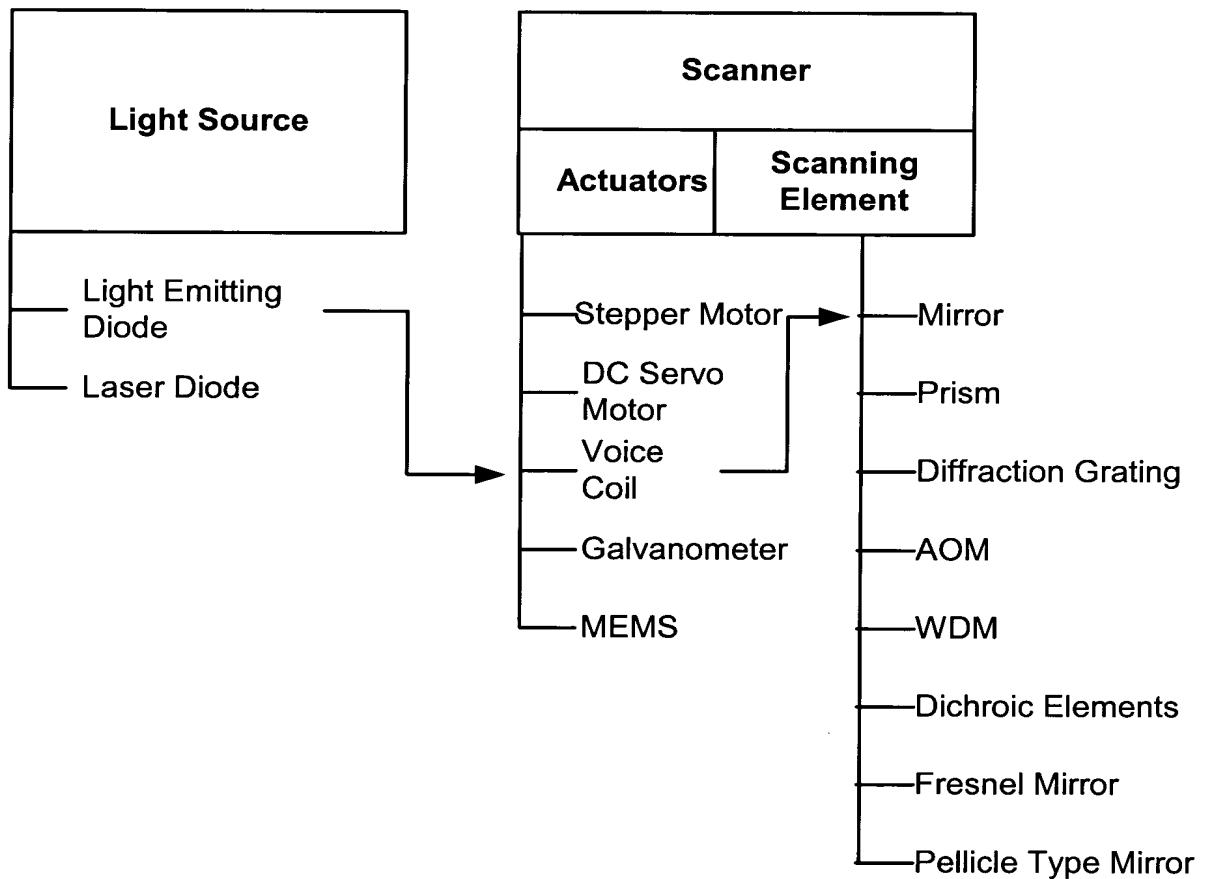


Fig. 9

13/18

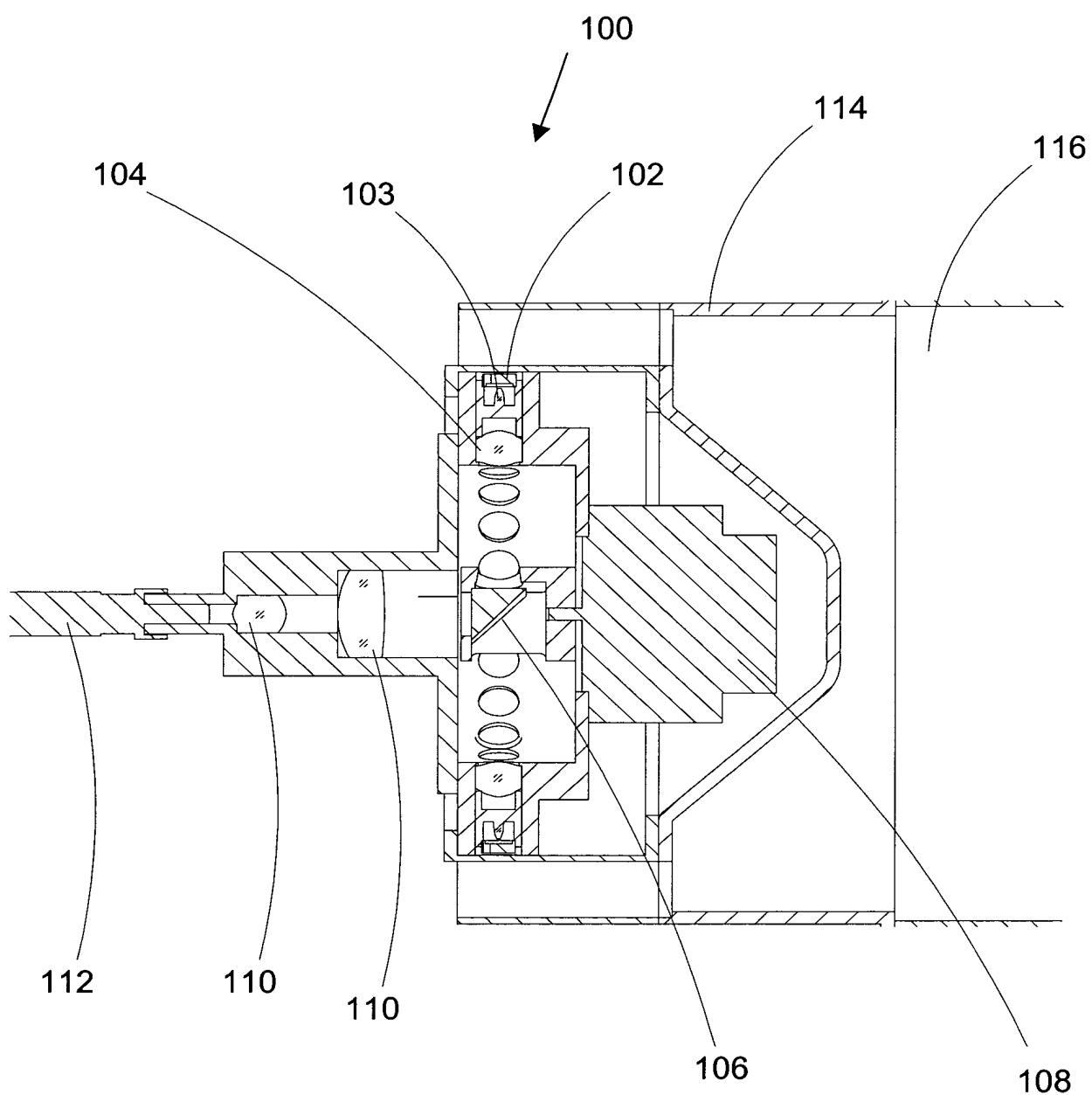


Fig. 10

14/18

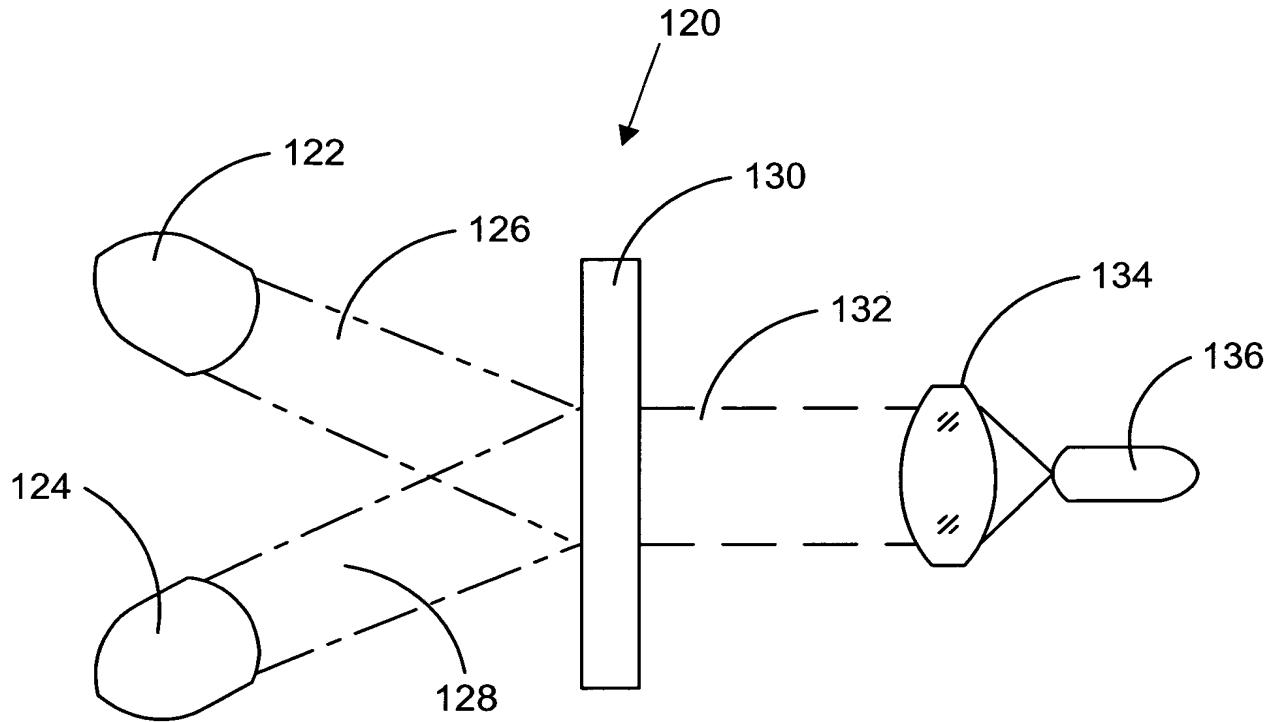


Fig. 11

15/18

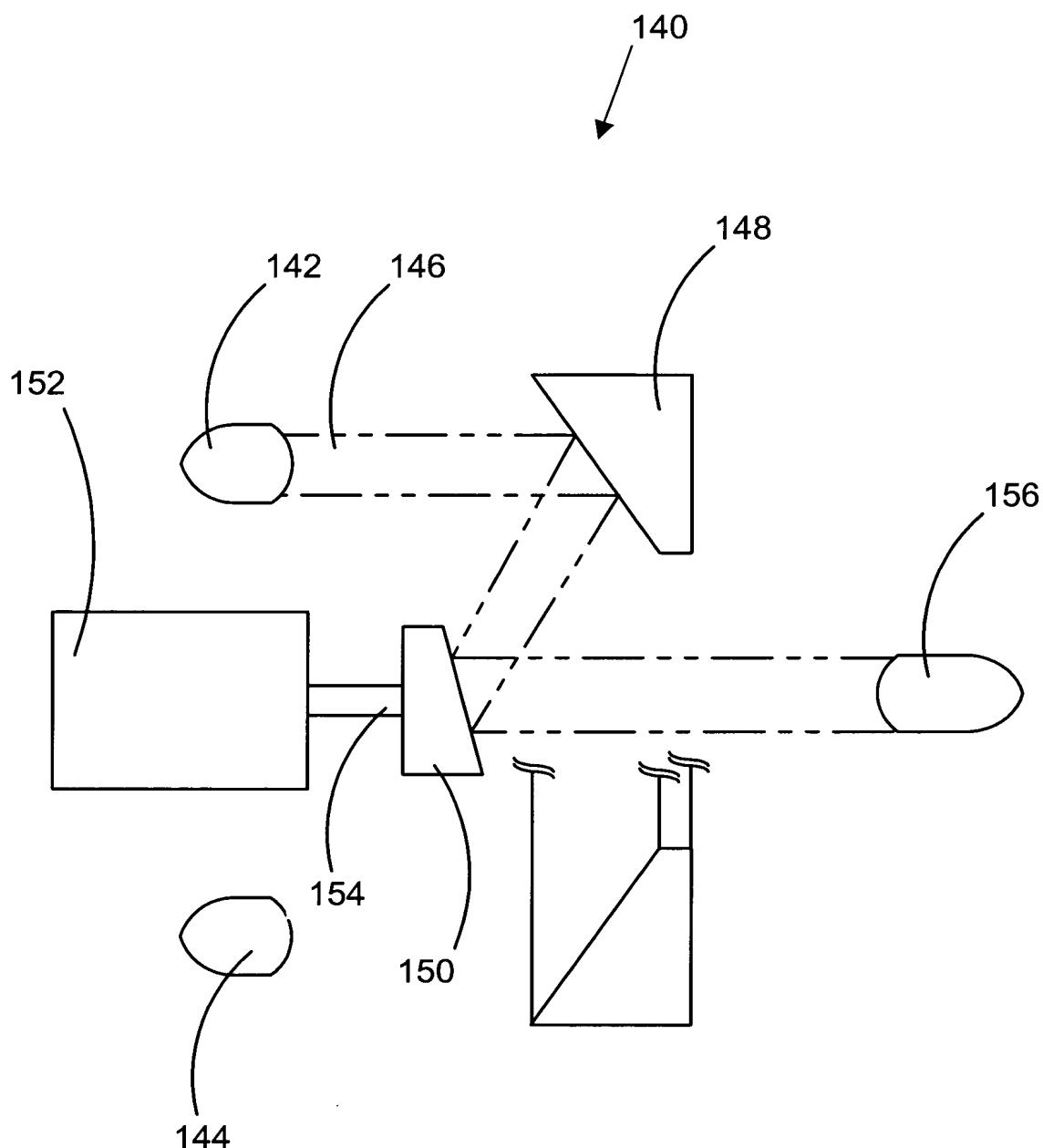


Fig. 12

16/18

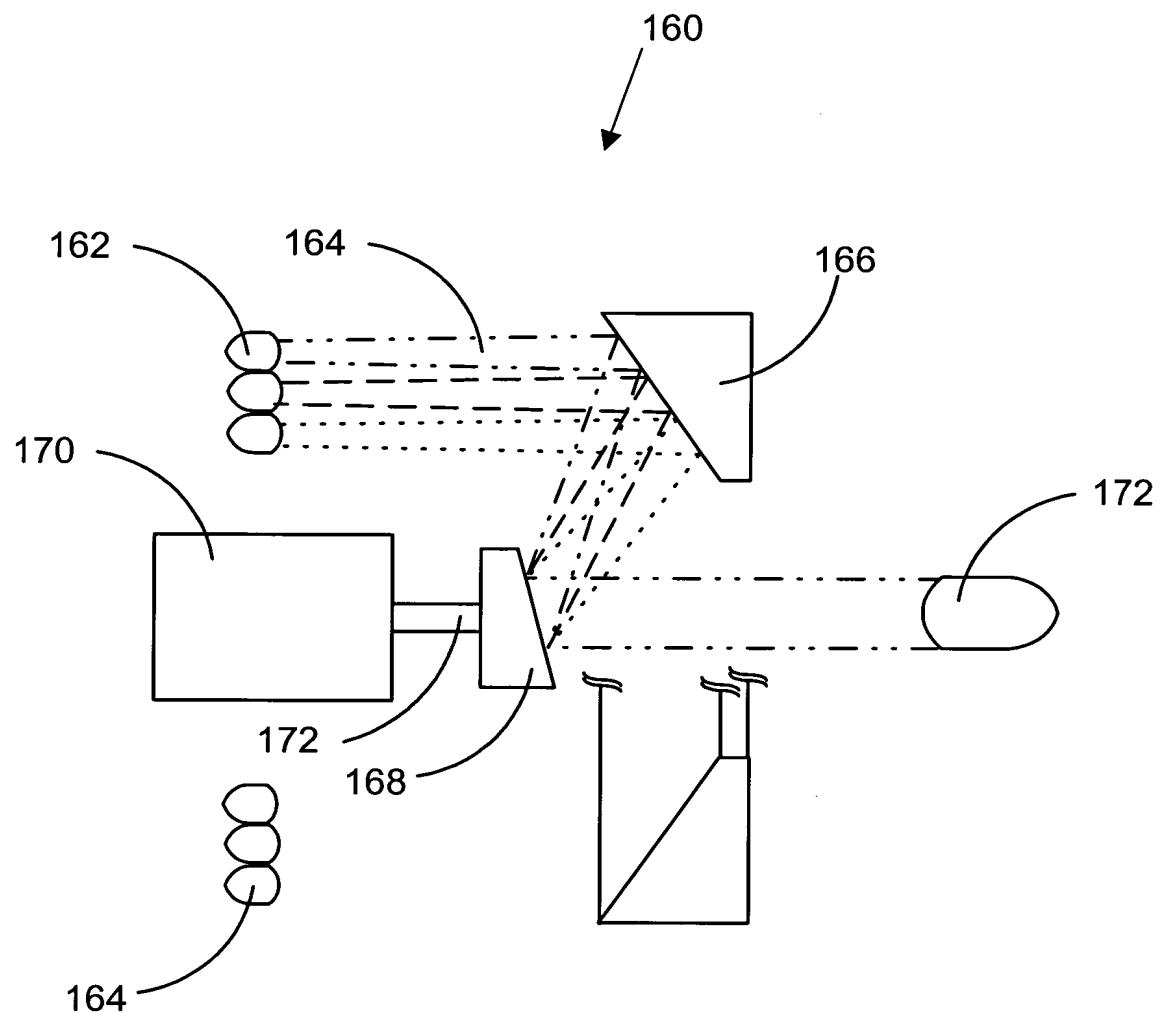


Fig. 13

17/18

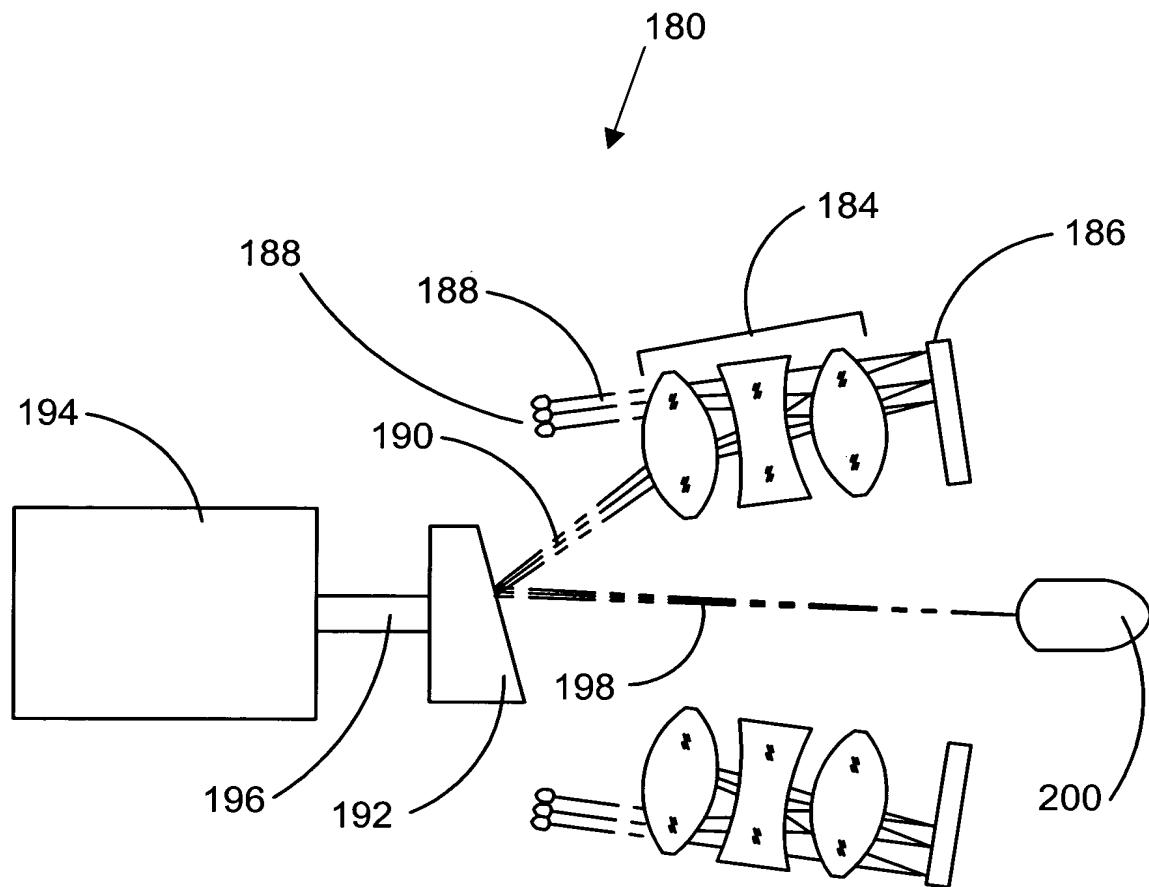


Fig. 14

18/18

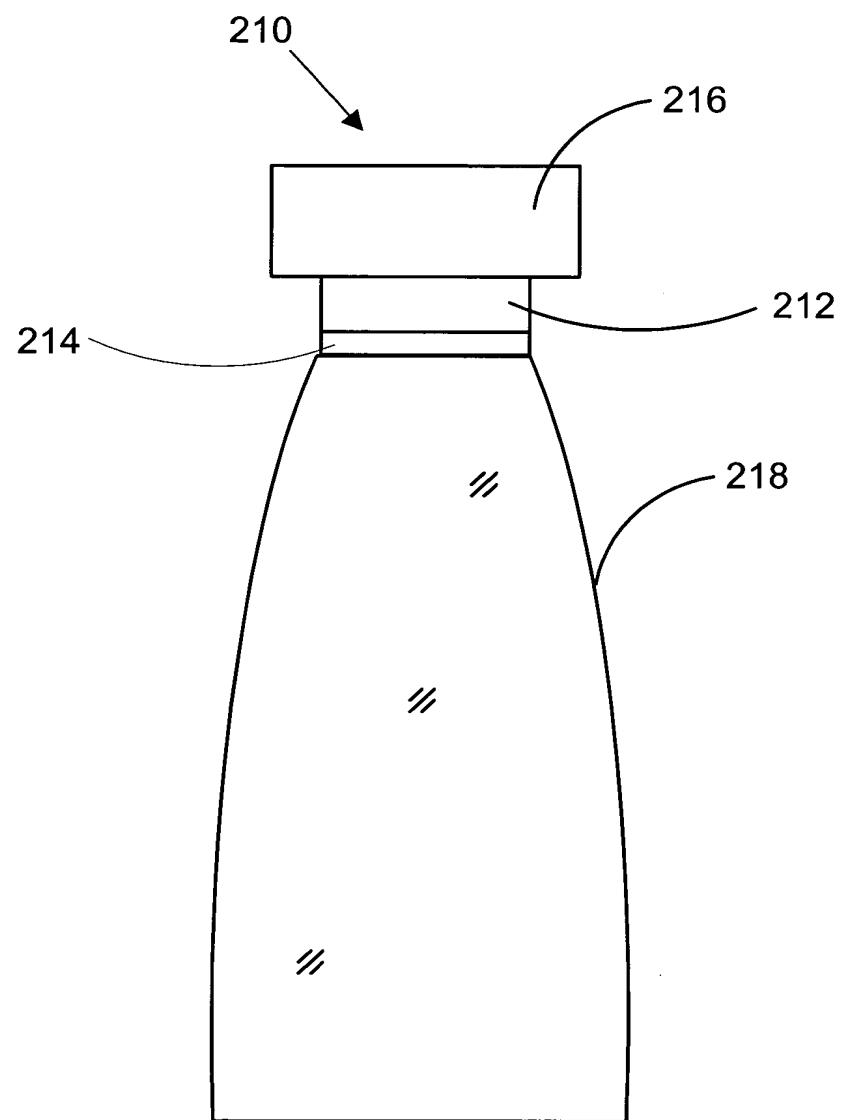


Fig. 15